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Un-Jin Choi

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EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT

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2627

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/643,867	<b>Applicant(s)</b> CHOI, UN-JIN	
	<b>Examiner</b> William J. Klimowicz	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 21, 2008 has been entered.

### *Claim Rejections*

Insofar as the claims can be best understood in light of the Applicant's disclosure, the following rejections, articulated in detail, are deemed *prima facie* appropriate, based on a preponderance of the evidence.

As recited **MPEP§2106**:

Office personnel are to give claims their ***broadest reasonable interpretation*** in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). ***Limitations appearing in the specification but not recited in the claim are not read into the claim.*** *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989) ("During patent examination the pending claims must be interpreted as broadly as their terms reasonably allow. . . . The reason is simply that during patent prosecution when claims can be amended, ambiguities should be recognized, scope and breadth of language explored, and clarification imposed. . . . An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process."). [Emphasis in bold italics added].

As set forth in the **MPEP§ 706**, “the standard to be applied in all cases is the ‘*preponderance of the evidence*’ test. In other words, *an examiner should reject a claim* if, in view of the prior art and evidence of record, *it is more likely than not that the claim is unpatentable.*” .”) Emphasis in bold italics added.

Additionally, it is noted that the following rejections are being made in view of the recent Supreme Court decision on *KSR Int’l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 11-19 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Watanabe (US 6,922,836 B2).

As per claims 1, 11 and 26, Watanabe (US 6,922,836 B2) discloses an optical disc drive (FIG. 1(A)) comprising: a deck (101) having a protrusion (e.g., “uppermost peak of the bottom surface or head unit 103 of the disk tray” - see COL. 3, ll. 58-62, a spindle motor (106) that rotates an optical disc being mounted on the protrusion, and an optical pickup (103) sliding along a radial direction of the optical disc drive also being directly mounted on the protrusion, the spindle motor (106) being mounted directly on the deck (101) without a space therebetween; a

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lower case (1), that the deck (101) slides into and out of, the lower case (1) has a penetration (e.g., 1b) having a substantially same shape as the protrusion such that a sliding limit of the protrusion corresponds to an edge of the penetration; and a cover (1c) that covers the penetration (partially covers) - see FIG. 3.

As per claim 2, wherein the cover (1c) covers the penetration (so that a lower surface of the cover does not protrude to a lower surface (1a) of the lower case - see FIG. 4, 5.

As per claims 3 and 12, wherein the cover (1c) is thinner than the lower case (1).

As per claim 4, wherein the penetration (1b) comprises a placing part (e.g., 1d) that is prepared at the edge of the penetration (1b) - see FIG. 3) and has a lower surface recessed by a thickness of the lower case from the lower surface of the lower case.

As it pertains to claims 5, 6 and 19, the product by process limitations in these claims (e.g., “wherein the cover is adhered onto the placing part,” and “wherein the cover is fixed onto the placing part by spot welding”) are directed to the product *per se*, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17(footnote 3). See also *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Fessman*, 180 USPQ 324; *In re Avery*, 186 USPQ 161; *In re Wertheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); *In re Marosi et al*, 218 USPQ 289; and particularly *In re Thorpe*, 227 USPQ 964, all of which make it clear that it is the patentability of the final structure of the product “gleaned” from the process limitations or steps, which must be determined in a “product by process” claim, and not the patentability of the process limitations. Moreover, an old or obvious product produced by a new method is not a patentable product, whether claimed in “product by process” claims or not. Note that the applicant has the burden of proof in such cases, as the above case law makes clear.

Additionally, as per claims 11 and 26, Watanabe (US 6,922,836 B2) discloses an optical disc drive (FIG. 1), comprising: a lower case (1), having an upper and a lower surface, including a main control board controlling the operation of the optical disk drive (not shown, inherently provide as is known in order operate the device), and a penetration (1b); a deck (101) which slides in and out of the lower case (1) occupying a volume of protruding space, a spindle motor (106) and an optical pickup (103) being mounted on the protruding space, the spindle motor (106) being mounted directly on the deck (101) without a space therebetween and a sliding limit of the protruding space corresponding to an edge of the penetration (1b); and a cover (1c) covering the penetration (1b) (at least partially), wherein the protruding space has a same shape as the penetration - see COL. 3, ll. 58-62.

As per claim 13, wherein the lower surface of the cover (1c) does not extend lower than a lower surface of the lower case (1a).

As per claim 14, further comprising a placing part (e.g., 1d, 1d), having an upper and a lower surface, along an edge of the penetration, transversely extending from the edge of the protrusion - see FIG. 3.

As per claim 15, wherein the upper surface of the placing part (1d) is level with the upper surface of the lower case - see FIGS. 3, 5.

As per claim 16, further discloses wherein the upper surface of the placing part (1d) is lower than the upper surface of the lower case (it is recessed).

As per claim 17, further discloses wherein the lower surface of the placing part (1d) is lower than the upper surface of the lower case by a thickness of the cover (1c)- see FIG. 5.

As per claim 18, wherein the lower surface of the placing part is formed higher than the lower case by the thickness of an adhesive *when* the cover is adhered onto the placing part.

Note that not only is claim 18 a product-by-process limitation (i.e., “adhered,” is also includes a conditional limitation “*when* the cover is adhered onto the placing part,” which is not a positive limitation in that the event is not required to have taken place).

Additionally, as per claim 26, the cover (1c) covering the penetration (at least partially), wherein the protruding space has a substantially same shape as the penetration formed by omitting and/or removing a portion of the lower case (1), the protruding space having a substantially similar shape as the penetration such that two and/or three dimensions of the protruding space fit within a plane and/or volume that has been removed which forms the penetration, such that if the penetration was not formed in the lower case (1), the protrusion would occupy at least a portion of the two dimensional and/or three dimensional protruding space when the deck (101) resides within the optical disc drive.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-10 and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (US 6,922,836 B2).

See the description of Watanabe (US 6,922,836 B2), *supra*.

Additionally, as per claims 9, 10, 24 and 25, although Watanabe (US 6,922,836 B2) does not expressly states wherein the optical pickup serves to reproduce data from a CD-ROM and records data on and reproduces data from a CD-RW or to reproduce data from a CD-ROM, record data on and reproduce data from a CD-R, and reproduce data from a DVD, such disc are well known and ubiquitous.

Official notice is taken that CD-R, CD-ROMs and DVDs are notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the device of Watanabe (US 6,922,836 B2) be capable or serving CD-Rs, CD-ROMS, CD-RWs and DVDs as is well known in the art.

The rationale is as follows: one of ordinary skill in the art would have been motivated to have the device of Watanabe (US 6,922,836 B2) be capable or serving CD-Rs, CD-ROMS, CD-RWs and DVDs as is well known in the art in order to be able to read high density discs with large capacity (e.g., DVDs) while also being able to record information onto a CD (e.g., CD-Rs and CD-RWs) as is well known, established and appreciated in the art.

Additionally, as per claims 7, 8, and 20-23, Watanabe (US 6,922,836 B2) provides no detailed description is provided as to how the circuit board and FPC are configured, as per claims 7, 9 and 20-23.

Official notice is taken that main control printed circuit boards and FPC's for the type of optical disc drive disclosed by Watanabe (US 6,922,836 B2) are notoriously old and well known



and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the device of Watanabe (US 6,922,836 B2) as having the configured with the FPC and main control, board, as per claims 9, 10 and 20-23.

The rationale is as follows: It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the device of Watanabe (US 6,922,836 B2) as having the configured with the FPC and main control, board, as per claims 9, 10 and 20-23, in order to provide a deck that can communicate with the control board, in a manner well known, established and appreciated in the art. Moreover, it is noted that even if Applicant's were to amend the claims to provide that penetration at an opposite side of the case (7) of Watanabe (US 6,922,836 B2), no new or unobvious result is seen to be obtained by the rearrangement of parts.

An invention that would have been obvious is not patentable. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 82 USPQ2d 1385 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). *See also KSR*, 127 S.Ct. at 1734, 82 USPQ2d at 1391 ("While the sequence of these questions might be reordered in any particular case, the [Graham] factors continue to define the inquiry that controls.")

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *id.* at 1739, 82 USPQ2d at 1395. In

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particular, the Court reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.* The Court stated that there are “[t]hree cases decided after *Graham* [that] illustrate this doctrine.” *Id.* at 1739, 82 USPQ2d at 1395. “In *United States v. Adams*, . . . [t]he Court recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *Id.* at 1739-40, 82 USPQ2d at 1395. “In *Anderson 's-Black Rock, Inc. v. Pavement Salvage Co.*, . . . [t]he two [pre-existing elements] in combination did no more than they would in separate, sequential operation.” *Id.* at 1740, 82 USPQ2d at 1395. “[I]n *Sakraida v. AG Pro, Inc.*, . . . the Court derived from the precedents the conclusion that when a patent simply arranges old elements with each performing the same function it had been known to perform and yields no more than one would expect from such an arrangement, the combination is obvious.” *Id.* at 1740, 82 USPQ2d at 1395-96 (internal quotation omitted). The principles underlining these cases are instructive when the question is whether a patent application claiming the combination of elements of prior art is obvious.

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

*Id.* at 1740, 82 USPQ2d at 1396. The operative question is thus “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*

Given, the teachings of Watanabe (US 6,922,836 B2), the level of skill in the art, and small difference between Watanabe (US 6,922,836 B2) and the subject matter of the claims, the Examiner concludes that the relocating of the penetration (8) of Watanabe (US 6,922,836 B2) within the side (7), to the side (5), where perhaps a main control board is mounted, would have been obvious given that the teaching of Watanabe (US 6,922,836 B2) is to reduce the height of an optical disc drive by providing a penetration which is directly opposite to a protrusion on the sliding deck, such that the protrusion does not interfere with the portion of a confronting housing.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Friday (7:30AM-6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William J. Klimowicz/  
Primary Examiner, Art Unit 2627